

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

- 1-13. (Canceled)
14. (Previously Presented) A photodiode arrangement, comprising:
a photodiode; and
a submount that is electrically contact-connected to the photodiode,
wherein the photodiode comprises a first metallization on a side facing the submount, the submount comprises a second metallization on a side facing the photodiode, the first metallization and the second metallization defining a eutectic mixture, and the photodiode and the submount are directly bonded to one another by the eutectic mixture of the first and second metallizations.
15. (Previously Presented) The arrangement as claimed in claim 14, further comprising one or more alignment marks situated on the photodiode or the submount or on both the photodiode and the submount.
16. (Previously Presented) The arrangement as claimed in claim 14, wherein the photodiode or the submount or both comprise a silicon chip.
17. (Previously Presented) The arrangement as claimed in claim 14, wherein the photodiode and the submount each have an outer contour that differs from one another and, accordingly, comprise regions that protrude relative to one another.

18. (Previously Presented) The arrangement as claimed in claim 17, further comprising contact pads situated on a region of the submount that protrudes with respect to the photodiode, wherein said contact pads are connected to the second metallization of the submount.

19. (Previously Presented) The arrangement as claimed in claim 17, wherein the photodiode comprises an optically active area situated on a region of the photodiode that protrudes with respect to the submount.

20. (Previously Presented) The arrangement as claimed in claim 14, wherein the first metallization of the photodiode comprises a gold metallization and the second metallization of the submount comprises a gold-tin metallization, or vice versa.

21. (Previously Presented) The arrangement as claimed in claim 14, wherein one of the photodiode and the submount comprise a trench or cutout on the side facing the other of the photodiode and the submount, thereby ensuring a connection between the photodiode and the submount only in defined regions not associated with the trench.

22-27. (Canceled)

28. (Previously Presented) The arrangement of claim 14, wherein the first metallization extends to an optically active region of the photodiode, the optically active region of the photodiode located opposite a corresponding window in the submount.

29. (Previously Presented) The arrangement of claim 14, wherein the second metallization extends to a pair of contact pads on the submount that are spaced from the photodiode.

30. (Previously Presented) The arrangement of claim 28, wherein the second metallization extends to a pair of contact pads on the submount that are spaced from the photodiode.

31. (Previously Presented) The arrangement of claim 30, wherein the first and second metallizations are each planar.

32. (Previously Presented) The arrangement of claim 14, wherein the first and second metallizations are each planar.

33. (New) The arrangement of claim 14, wherein the second metallization has a different composition than the first metallization, the first metallization and the second metallization together defining the eutectic mixture.